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code to update a display of a cursor within a graphical user interface using sensor information received from an interface device, the sensor information being associated with motion of at least a portion of the interface device;

code to output a tactile sensation when the cursor engages the graphical target;

code to detect whether the cursor has moved to or past a trigger location in the graphical target;

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code to select a function within the graphical user interface when the cursor has moved to or past the trigger location; and

code to modify the tactile sensation in response to the function being selected;

the graphical target being a static retention surface and the cursor being displayed at an original position of engagement while the at least a portion of the interface device moves in a direction corresponding to a direction into the graphical target.

REMARKS

Entry of the foregoing amendments, and reconsideration of the above-identified application in light of the amendments above and the remarks that follow is respectfully requested. Claims 53, 59, and 63 have been cancelled and claims 44-52, 54-58, 60-62, and 64-66 remain pending in the application.

Applicants gratefully acknowledge the Examiner's indication on page 9 of the Office Action that claims 45, 46, 49, and 59 contain allowable subject matter. The indicated allowable subject matter of claim 59 has been incorporated in independent claims 56 and 66.

Applicants acknowledge with gratitude the courtesies extended to their representative by Examiner Bell during an interview on Wednesday, January 29, 2003.

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Barber is Not Prior Art


Claims 44, 47-58, and 60-66 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,973,670 to Barber, *et al.* (hereinafter "*Barber*"). It appears that claim 49, which was indicated as allowable on the Office Action Summary page and page 9 of the Office Action, was inadvertently included in the statement of the rejection. Applicants respectfully traverse this rejection for the reasons set forth below.

Barber is not prior art, as it was filed on December 31, 1996, which is pre-dated by the priority claim of the present application. The present application was filed on November 13, 2001, and claims priority of U.S. Application No. 08/879,296, filed on June 18, 1997, now U.S. Patent No. 6,078,308, which claims priority as a continuation-in-part of two applications: (1) Application No. 08/756,745, filed November 26, 1996, now U.S. Patent No. 5,825,308 (hereinafter "the '308 patent") and (2) Application No. 08/571,606, filed December 13, 1995, now Patent No. 6,219,032 (hereinafter "the '032 patent"). Both of the CIP Applications pre-date *Barber*.

The currently pending claims are at least supported by the '308 patent, and therefore should be accorded benefit of the November 26, 1996 filing date of the application from which that patent issued, at the latest.

For example, with respect to independent claim 44, the '308 patent supports (a) updating a display of a cursor within a graphical user interface using sensor information received from an interface device, the sensor information representing motion of at least a portion of the interface device; (b) determining whether the cursor engages a graphical target displayed within said graphical user interface; (c) detecting a speed of the cursor when it engages the graphical target; and (d) outputting a tactile sensation based upon the speed of the cursor when the cursor engages the graphical target.

Specifically, with respect to feature (a) listed above, the '308 patent is replete with references to updating a display of a cursor within a graphical user interface (GUI), the sensor information representing motion of at least a portion of the interface device. *See, e.g.,* Abstract; col. 4, lns. 13-33. With respect to feature (b) listed above, the '308 patent supports determining whether a cursor engages a graphical target within the GUI. *See, e.g.,* Element 424 of Fig. 13;



col. 25, ln. 30 – col. 26, ln. 42. Regarding to feature (c) of claim 44 listed above, the ‘308 patent supports detecting a speed (or velocity) of the cursor when it engages the graphical target. *See*, e.g., col. 27, ln. 60 – col. 28, ln. 9. Regarding feature (d) listed above, the ‘308 patent supports outputting a tactile sensation based upon the speed of the cursor when the cursor engages the graphical target. *See*, e.g., col. 27, ln. 60 – col. 28, ln. 9.

Independent claims 56 and 66 are similarly supported by the application from which the ‘308 patent issued, and are therefore also entitled to the same filing date as that application. In addition to the features discussed above in connection with claim 44, independent claims 56 and 66 disclose that the graphical target may be a static retention surface and whereupon the cursor remains displayed at an original position of engagement while at least a portion of the interface device moves in a direction corresponding to a direction into the graphical target. *See*, e.g., col. 31, lns. 19-22, 29-53.

Therefore, as each of the features of independent claims 44, 56, and 66 are supported in the patent application that issued as the ‘308 patent, and benefit of the filing date of that application (which pre-dates *Barber*) should be accorded to claim 44, Applicants respectfully submit that *Barber* is not prior art. Accordingly, for at least this reason, Applicants respectfully request the withdrawal of the rejection of independent claims 44, 56, and 66, and claims 47-58 and 60-66, which depend from claims 44 and 56, and are patentable for at least the same reasons.

The Claims Overcome the Double Patenting Rejection

Claims 56 and 66 stand rejected under obviousness-type double patenting, as being unpatentable over claims 1 and 14 of U.S. Patent No. 6,317,116 to Rosenberg, *et al.* (hereinafter “*Rosenberg*”), which is commonly assigned to the assignee of the present application.

Applicants respectfully submit that this rejection has been obviated by the amendments above. Specifically, the subject matter of claim 59, which was indicated as allowable by the Examiner, has been added to claims 56 and 66, which is not present in the cited claims of *Rosenberg*.

Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 56 and 66 under obviousness-type double patenting.

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Conclusion

All rejections having been addressed, Applicants respectfully submit that a notice of allowance is in order, and earnestly solicit such. Should the Examiner have any questions regarding this communication, or the application in general, he is invited to telephone the undersigned at (703) 456-8108.

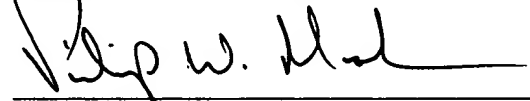
The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-1283.

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APPENDIX

IN THE SPECIFICATION:

Please replace the paragraph starting on page 1, line 9, with the following paragraph:

This application is a continuation of copending U.S. Patent Application No. 09/590,856, filed June 8, 2000, now Patent No. 6,317,116, which is a continuation of Application No. 08/879,296, filed June 18, 1997, now Patent No. 6,078,308, which is a continuation-in-part of [patent application no.] Application No. 08/571,606, filed December 13, 1995, now Patent No. 6,219,032, and [no.] Application No. 08/756,745, filed November 26, 1996, now Patent No. 5,825,308, all of which are assigned to the assignee of this present application, and all of which are incorporated by reference herein in their entireties.

IN THE CLAIMS:

Please amend the claims as shown below:

44. (Amended) A method [for interfacing an interface device with a host computer to select a function in a graphical user interface implemented on said host computer, the host computer in communication with the interface device, the method] comprising:

updating [causing an update of] a display of a cursor within [said] a graphical user interface using sensor information received from [said] an interface device, [said] the sensor information representing motion of at least a portion of [said] the interface device;

[enabling a determination of whether said cursor engages a graphical target displayed within said graphical user interface;]

detecting [enabling a determination of] a speed [of said engagement] of the [said] cursor [with said] when it engages the graphical target; and

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[causing] outputting a tactile [feedback command to be provided,] sensation based upon [said] the speed of [said] the cursor [engagement, to said interface device to cause a tactile sensation to be output to a user] when the cursor engages [said] the graphical target.

45. (Amended) [A] The method [as recited in] of claim 44 wherein [if] the outputting a tactile sensation occurs only if [said] the detected speed of engagement is [above a predetermined threshold speed, a tactile sensation is not output to said user, and if said speed of engagement is] below [said] a predetermined threshold speed, a tactile sensation will be output to [said] the user.

46. (Amended) [A] The method [as recited in] of claim 45 wherein the detected speed is compared with a plurality of [different] threshold speeds, the plurality of threshold speeds being [are] associated with a plurality of [different] tactile sensations, the output tactile sensation being from the plurality of tactile sensations.

47. (Amended) [A] The method [as recited in] of claim 44 [further comprising] wherein the determining further includes determining when [said] the cursor has moved to or past a trigger location positioned in [said] the graphical target.

48. (Amended) [A] The method [as recited in] of claim 47 further [comprising] comprising selecting a function within [said] the graphical user interface when [said] the cursor has moved to or past [said] the trigger location.

49. (Amended) [A] The method [as recited in] of claim 48 wherein [said] the selecting only is performed when the [said engagement] speed of the cursor is below a predetermined threshold speed.

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50. (Amended) [A] The method [as recited in] of claim 44 wherein [said] the graphical target is a menu element displayed in [said] the graphical environment.

51. (Amended) [A] The method [as recited in] of claim 44 wherein [said] the graphical target is a graphical button.

52. (Amended) [A] The method [as recited in] of claim 44 further comprising changing at least one displayed characteristic of [said] the graphical target to indicate that [said] the function has been selected.

53. (Deleted)

54. (Amended) [A] The method [as recited in] of claim [53] 44 wherein [said] the tactile sensation [output to said user] includes a force on [said] the [user object] interface device.

55. (Amended) [A] The method [as recited in] of claim 44 wherein the tactile sensation [output to said user comprises] includes one or more of a vibration, a texture, and a jolt.

56. (Amended) A method [for interfacing an interface device with a host computer to select a function in a graphical user interface implemented on said host computer, the host computer in communication with the interface device, the method] comprising:

displaying [causing an update of a display of] a cursor within [said] a graphical user interface using sensor information received from [said] an interface device, [said] the sensor information [representing] being associated with motion of at least a portion of [said] the interface device;

[enabling a determination of whether said cursor engages a graphical target displayed within said graphical user interface;]

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outputting [causing] a tactile feedback command to be provided to [said] the interface device to cause] a tactile sensation [to be output to a user] when [said] the cursor engages [said] the graphical target;

detecting [enabling a determination of] whether [said] the cursor has moved to or past a trigger location [positioned] in [said] the graphical target;

[when said cursor has moved to or past said trigger location, enabling said] selecting [of said] a function within [said] a graphical user interface when the cursor has moved to or past the trigger location; and

[causing said] modifying the tactile sensation [to change indicate to said user], the modifying being associated with the selecting of the function; [that said function has been selected];

the graphical target being a static selection surface and the cursor [is maintained] being displayed at an original position of engagement while the at least a portion of the interface device moves in a direction corresponding to a direction into the graphical target.

57. (Amended) [A] The method [as recited in] of claim 56 wherein the [said] cursor is determined to have moved to the [said] trigger [position] location when the [said] cursor has moved a predetermined distance past a point of engagement [corresponding to a predetermined distance].

58. (Amended) [A] The method [as recited in] of claim 56 wherein the [said] graphical target is modified visually when the [said] cursor reaches the [said] trigger [position] location.

59. (Deleted)

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60. (Amended) [A] The method [as recited in] of claim 56 wherein the [said] graphical target is a menu element displayed in the [said] graphical [environment] user interface.

61. (Amended) [A] The method [as recited in] of claim 56 wherein the [said] graphical target is a graphical button displayed in [a web page graphical environment] the graphical user interface.

62. (Amended) [A] The method [as recited in] of claim 56 further comprising:
changing at least one displayed characteristic of the [said] graphical target [after said trigger location has been exceeded] to indicate [to said user] that the [said] function has been selected.

63. (Deleted)

64. (Amended) [A] The method [as recited in] of claim [63] 56 wherein [said] the output tactile sensation [output to said user comprises] includes a force on the [said user object] interface device.

65. (Amended) [A] The method [as recited in] of claim 56 wherein the output tactile sensation [output to said user comprises] includes at least one [or more] of a vibration, a texture, and a jolt.

66. (Amended) Processor-executable code [A computer readable medium including program instructions for interfacing an interface device with a host computer and causing a function in a graphical user interface implemented on said host computer to be selected, the host computer in communication with the interface device, the program instructions performing steps] comprising:

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code to update [causing an update of] a display of a cursor within [said] a graphical user interface using sensor information received from [said] an interface device, [said] the sensor information [representing] being associated with motion of at least a portion of [said] the interface device;

[enabling a determination of whether said cursor engages a graphical target displayed within said graphical user interface;]

code to output [causing a tactile feedback command to be provided to said interface device to cause] a tactile sensation [to be output to a user] when [said] the cursor engages [said] the graphical target;

code to detect [enabling a determination of] whether [said] the cursor has moved to or past a trigger location [positioned] in [said] the graphical target;

code to select [when said cursor has moved to or part said trigger location, enabling said selecting of said] a function within [said] the graphical user interface when the cursor has moved to or past the trigger location; [and]

code to modify the [causing said] tactile sensation in response to the function being [to change indicate to said user that said function has been] selected; and

the graphical target being a static retention surface and the cursor being displayed at an original position of engagement while the at least a portion of the interface device moves in a direction corresponding to a direction into the graphical target.

